

With the Authors' compliments

On the **EARLY DIAGNOSIS** and **TREATMENT**

OF

Pulmonary

Tuberculosis

AND

Præ-Tuberculous Affections

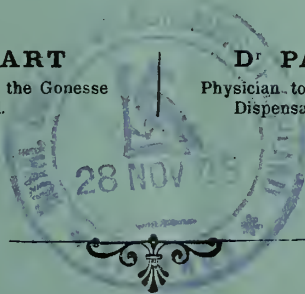
BY

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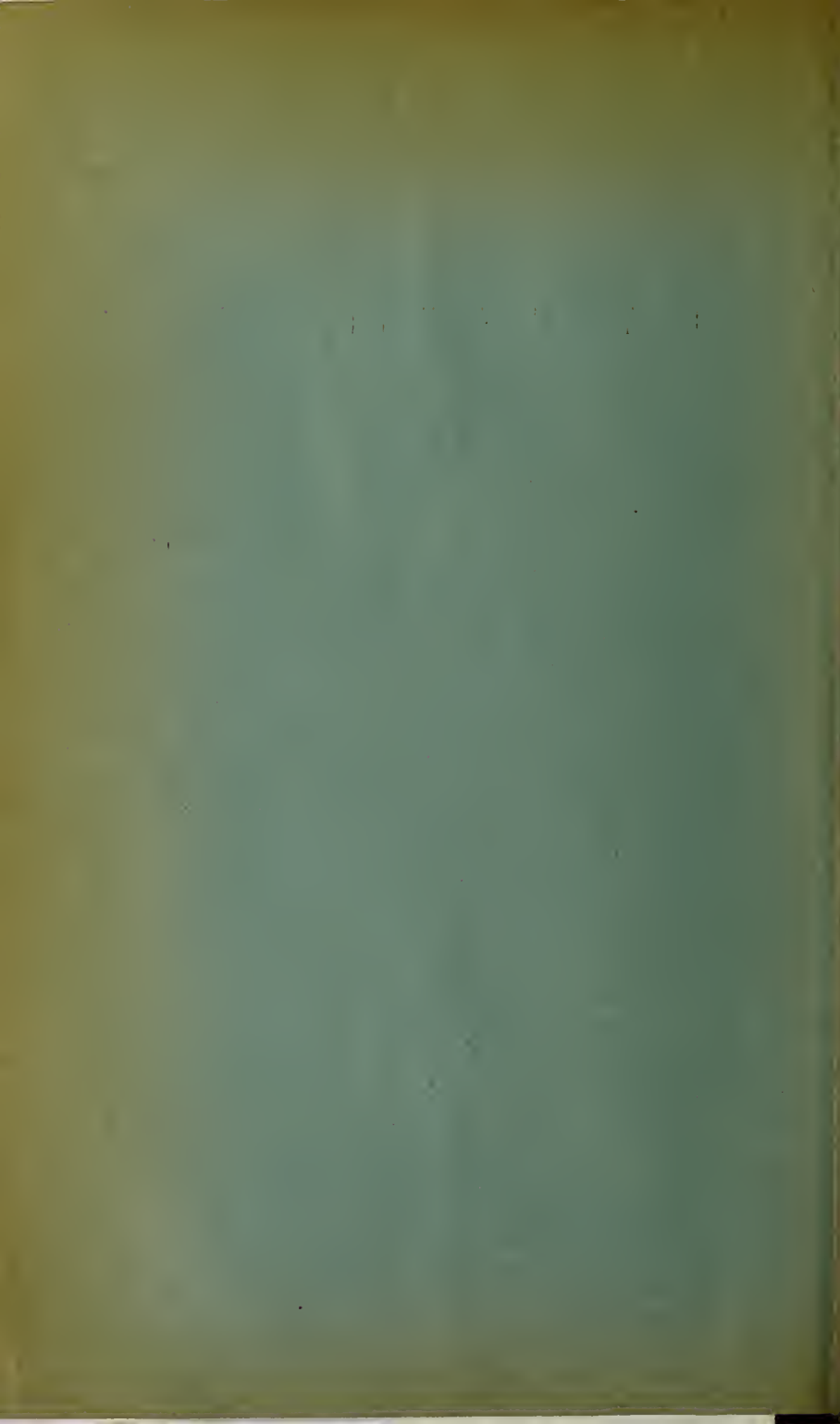


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IMPRIMERIE MOUNIER, JEANBIN et C^{ie}

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Early diagnosis has always been accorded great importance in pathology. To withdraw the patient from external causes calculated to aggravate his condition, to institute an appropriate treatment, to attack diseases at their very onset when they are necessarily more amenable to curative measures, these are so many reasons that render the physician desirous of satisfying himself, at as early a period as possible, as to the nature of the malady which he is called upon to treat.

This matter of early diagnosis possesses a very special importance in respect of pulmonary tuberculosis since the works of Bonnet, Dettweiler, Jaccoud, G. Sée, Darenberg and many others, have made it perfectly clear that at the beginning it is a curable disease.

In the absence of the specific bacillus in the sputum and of characteristic stethoscopic signs at the apices of the lungs, the existence of tuberculous disease of the lungs may still be

inferred from certain symptoms which, if well marked, justify the diagnosis of incipient phthisis. We propose to limit our remarks on the present occasion to these particular signs in the following order :

1° Symptoms observed on external examination of the patient and of his lungs.

2° Symptoms derived from the blood and circulatory organs.

3° The treatment of tuberculosis and præ-tuberculous affections.

CHAPTER I

Elements of Diagnosis

General Appearance. — Tuberculous subjects, at the onset, especially among the young, are usually tall, spare persons whose growth has been unduly rapid. The chest is wider at the base than at the top, the clavicles and shoulder blades are prominent, the supra-clavicular fossæ are deep and of unequal size, and they are round-shouldered with frail limbs. Their hands present a peculiar deformity in that the finger tips are bulbous. The growth of hair is generally abundant, the hair being long and silky. The eyes are unnaturally bright and the pupils are sometimes unequal. The last-named symptom, to which attention was first called by Destru, is secondary to enlargement of the tracheo-bronchial glands and has been experimentally reproduced in animals. Dr Papillon is of opinion that incipient tuberculosis may be suspected in all chlorotic subjects whose thoracic circumference measures less than half their height and the relationship of whose body weight, expressed in hectogrammes, to the height expressed in centimetres, is less than 3.

F. Thompson's Sign. — This sign was described some years ago by Frederick Thompson and has since been studied by Sheker, Jannders and Draper, Ruehle and Andressen. It consists in the appearance of a line on the gums long before any stethoscopic signs can be detected. Whitish at the onset of tuberculosis and in scrofula, this line becomes violet in chronic phthisis and of a bright red when the disease is acute. It is

therefore both a means of early diagnosis and of prognosis. Andressen, in Russia, has given this sign particular attention and he met with it in 80 per cent of the patients.

Pain on percussion localised in the Apex. — Bonnel (1) has shown that at the onset of tuberculosis the patient complains of rather sharp pain on percussion of the infra-clavicular region. The painful zone is strictly limited, above by the clavicle, below by the fourth rib, inside a line passing about an inch from the median line. Outside this zone it often reaches the tip of the shoulder and extends even into the supra- and infra-spinous fossæ. As a general rule the symptom is unilateral, like the lesion with which it is associated.

Symptoms derived from auscultation of the Lungs. — Dulness on percussion, diminution or roughness of the vesicular murmur with prolonged expiration. These signs are almost always perceptible behind, in the supra-spinal fossa and are clear in front, under the clavicle. A diagnosis based on these signs is open to question especially, as Burghart remarks, when they are met with in strong and apparently robust individuals.

Râles at the Base. — Burghart (2) in order to overcome these difficulties devised a means, of the efficacy whereof he has had plenty of opportunities of satisfying himself, of arriving at an early diagnosis of pulmonary tuberculosis. His plan is to systematically examine the base of the lungs for râles. These râles, when present, are due to the aspiration of mucus from the apices, drawn down with the incoming current of air. G. Sée and Landouzy demonstrated incidentally that râles previously inaudible can be detected if iodide of potassium be given in four-grain doses daily for several days.

Enlargement of Tracheo-Bronchial Glands. — Inflammation of the glands surrounding the trachea and the larger bronchi is very frequently associated with the onset of tuberculosis, especially in the young. Its existence may be inferred from

(1) Bonnel. — *Loire médicale*, March and Sept 1900.

(2) Burghart. — *Deutsched med. Zeitschr*, 1900, p. 18.

the following signs: retro-sternal or inter-scapular dulness, a diminution of the respiratory murmur over the whole of one side of the chest; dyspnœa, occasionally accompanied by cyanosis or œdema of the face and upper limbs, a whoopy cough sometimes followed by vomiting and, lastly, repeated attacks of bronchitis and pulmonary congestion.

The Sputum and the Tubercle Bacillus. — It is very difficult to detect the presence of the specific bacillus in the early stage of tuberculosis. As a rule, says Grancher, the physical and reactional signs precede the appearance of the bacillus in the sputum. The search for the bacillus is carried out in special laboratories and it is unnecessary to describe it here. If microscopical examination gives negative results it may be advisable to have recourse to the inoculation of guinea pigs with the suspected material. Tavel, in 1888, was the first to make use of inoculations as an aid to the diagnosis of tuberculosis. He states:

1° That whenever the affection was tuberculous the inoculation of animals produced tuberculosis.

2° That this method of testing the expectoration gives much more trustworthy results than the pathological examination.

3° That it may give positive results under circumstances that render an anatomical examination impracticable.

Arloing, Courmont, Dor, Galtier and Nocard have demonstrated that the guinea pig is the test animal *par excellence* of tuberculous infection.

Early Hæmoptysis. — Incipient pulmonary tuberculosis, running a latent course and not discoverable by stethoscopic examination, sometimes reveals its presence by attacks of hæmoptysis, that are often attributed to cardiac lesions, but may be associated with the presence of the tubercle bacillus (G. Séé, Hugueny, Cochez). Every hæmoptysis, says Grancher (1), that supervenes after forty years of age which is not cardiac, is

(1) Grancher. — *Maladies de l'appareil circulatoire*, Paris, 1899, p. 168.

tuberculous. The value of this sign is enhanced by the fact that the form of phthisis with which it is association is particularly curable.

Radioscopy-Radiography. — In Decr. 1896, Bouchard showed that the X rays afford great assistance in exploring the thorax and its contained organs.

Respiratory Chemistry. — Robin and Binet (1) have recently published a new method of arriving at an early diagnosis of pulmonary tuberculosis by the investigation of the chemistry of respiration. Their investigations bore on some 392 patients and they found that the respiratory exchanges are more intense in the phthisical than in healthy individuals and this not only in respect of persons recognized to be tuberculous but also in merely suspicious cases and in persons of tuberculous heredity.

This respiratory excess of activity was manifested as follows :

1° The tidal air increases 110 per cent in women and 80.5 per cent in men.

2° The quantity of carbonic acid expired per kilogramme of body weight and per minute is increased 86 per cent in women and 64 per cent in men.

3° The total amount of oxygen consumed per kilogramme-minute is increased 100.5 per cent in women and 60 per cent in men.

« These changes in the chemistry of respiration, they state, are manifest from the earliest phase of tuberculosis, thus enabling us to diagnose its existence at a very early stage. »

Examination of the Blood. — Examination of the blood may also assist us in arriving at an early diagnosis of pulmonary tuberculosis in persons in whom latent tuberculous infection is manifested by anæmia and chlorosis. The number of red corpuscles undergoes a marked diminution from the very onset of the malady long before any stethoscopic signs can be detected

(1) Robin et Binet. — Comptes rendus de l'Académie de médecine. March 1901.

and the diminution becomes more and more marked as the disease progresses. The leucocytes always present micro-chemical stains even in the absence of auscultatory signs.

Tachycardia. — Rapidity of the pulse at the onset of tuberculosis is a symptom of extreme importance. Faisans (1) records that Lassèque attached conclusive importance to this diagnostic sign.

Lowered Arterial Pressure. — Arterial tension falls very markedly in pulmonary tuberculosis. According to the observations of MM. Marfan, Broehmer and Potain, instead of being from 15 to 18 centimetres of mercury it sinks to 13,10 and even to 8 centimetres.

Urinary Analysis. Albuminuria of the præ-tuberculous. — A. Robin (2) and Teissier have demonstrated that at the onset of the disease the urinary secretion is increased. During the second stage it is about normal while in the terminal period it is scanty and of high specific gravity.

The proportion of earthy phosphates is increased and there is actual phosphaturia. Teissier has established the existence of a præ-tuberculous albuminuria and this sign is one of extreme significance. The quantity of albumen in the twenty-four hours is between 3 and 13 grains.

Evening Rise of Temperature. — In tuberculous subjects « the relationship between the physical signs that enable us to estimate approximately the extent and gravity of the lesions and the subjective or functional signs, always presents a disconcerting want of uniformity. This nonconformity moreover may be observed throughout the whole course of the disease but never as well marked as at the commencement. » (3).

Now the state of the temperature is one of the symptoms that most strikingly confirms the statement which we owe to

(1) Faisans, *Chirurgies médicales, la Pitié. Semaine médicale*, 1898, p. 305.

(2) Robin, sur la nutrition dans la tuberculose pulmonaire. *Soc. méd. des hôp.*, March 9 1896.

(3) Hanot. — *Loc. cit.*

Hanot. Very uncertain at the onset of phthisis, fever is often absent when the stethoscopic signs already justify the suspicion of tuberculosis; in other cases a rise of temperature precedes the auscultatory signs. (Andral and Friselle, Wunderlick, Sidney Ringer, etc.). Lastly it acquires special importance in cases where tuberculosis insidiously invades a soil that has been prepared by a previous acute attack of lung disease. In such cases the temperature chart approximates that of hectic fever, *viz*: a fall to normal in the morning with a rise in the evening, to the extent of a fraction of a degree, in the early stage.

It usually keeps to this type for a long time, with few or no remissions and quite regular in its advent, constituting a typhoid state to which Landouzy applied the term « præ-tuberculous, bacillary fever, of the typhoid type. » In some instances the fever is of the intermittent or remittent type with sudden rises accompanied by profuse sweats and palpitation but this type is, as a rule, only met with at an advanced stage of the disease when the tubercles are beginning to undergo softening.

At the last Congress at Naples (April 1900), Landouzy insisted on the importance of this rise of temperature from a diagnostic point of view. As it is not present in all cases he adopted the following plan: he took the rectal temperature of his patients after they had been out for two walks of three or four hours, one in the morning and the other in the afternoon. If the latter be higher than the former, even if only by a fraction of a degree, he holds that we are justified in affirming the existence of latent tuberculosis.

Daremborg and Chuquet compared the temperature taken after an hour's walk at any time of the day with that taken after half an hour's rest. According to these observers we may suspect tuberculosis if there be a slight fall in the latter (1).

This tuberculous fever appears to be intimately associated with the production of toxins elaborated by the specific

(1) Daremborg et Chuquet. — *Revue de Médecine*, Sept. 1899.

bacillus and the micro-organisms associated with it. The former alone however is sufficient to determine the fever seeing that Arloing and Guinard have clearly proved the pyretic action of tuberculins TA and TC among the four products that they succeeded in isolating from Kochs first tuberculin.

We may sum up as follows : Of all these symptoms none possesses an absolutely indisputable significance but any one among them which, alone, would scarcely attract attention, acquires much greater significance when associated with one or more of the others.

CHAPTER II

Treatment of Tuberculosis and Præ-Tuberculous Affections

The treatment of tuberculosis has been the subject of an immense amount of careful study and investigation and in the present state of our knowledge it may be divided into two well-defined, distinct departments: the physical and the medicinal methods. The physical treatment, the natural therapeusis, employs exclusively physical means. It may be summed up in three terms, fresh air, rest and hyperalimentation. This hygieno-dietetic method, which must be accorded a first place, is, as a rule, easy to carry out and need not be discussed here. As regards the medicinal treatment which is the subject of this essay, it comprises two kinds, the anti-infective and the dynamogenic medications.

The former, which is the most ancient, is the one that suggested itself first of all as soon as the parasitic nature of the disease was placed on a sound scientific basis but it has not fulfilled its promises. A large number of antiseptics have been made use of with this object in view but none of them has proved successful without the aid of auxilliary means. In view of these failures and under the influence of Metchnikoff's phagocytic theories the great majority of physicians have abandoned the antiseptic, in favour of the dynamogenic treatment.

Tuberculosis is, indeed, of all the infectious diseases, the one in which the state of the soil appears to exert the greatest influence on the course and the form of the affection. *The tuberculous state, in fact, is the outcome of physical deterioration.* In the treatment of this affection therefore it follows that our best endeavours must be directed to raising the general health and, by assisting the means of defence of the predisposed or affected organism, to create a natural immunity, a soil unsuited for the culture of the specific bacillus. *Antituberculous therapeutics must therefore aim at improving and developing the means of phagocytic defence possessed by the organism.* Experience and the researches of eminent investigators such as Armand Gautier, Renaut, Albert Robin, Kossel, Gilbert, etc., etc., have proved that the elements best-calculated to improve failing nutrition are arsenic and phosphorus in the form of organic compounds.

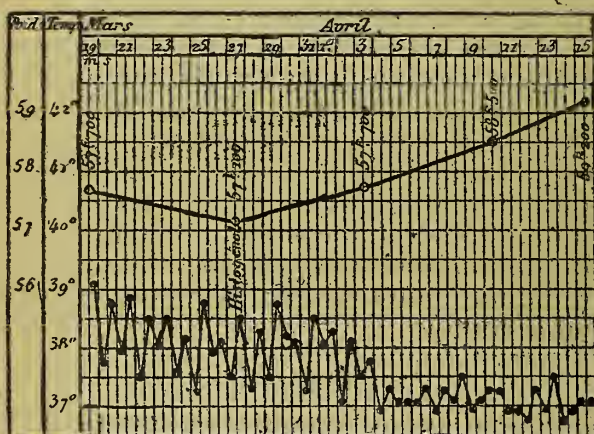
One of our most distinguished chemists, Mr. Naline, has been successful in forming organic compounds of these two elements under conditions that ensure the possession of a maximum of therapeutical activity and we have systematically studied the action of this new remedy. We append notes of patients who presented indisputable signs of the presence of cavities who were treated and cured by this new arsenio-phosphorated medication.

CASE I

Mr. H. age 50, painter. Contracted syphilis when 27 years of age. Never suffered from lead colic. Is an alcoholic, muscular tremor and pain in muscles. Has pain in epigastrium on waking in the morning. Chronic cough for last six years, starting with an attack of bronchitis. On admission he was quite incapacitated for work, coughed continually and expectorated abundantly, the sputum being yellow and mattery. He sweats freely at night so much so that he is obliged to change his linen at least twice. Sleep is disturbed and he complains of persistent headache, by night as well as by day. Painful spots over the chest, especially on the left side. Never spat blood. Appetite bad.

On physical examination there were signs of emphysema and chronic bronchitis, breaking down of both apices, most marked on the left where moist râles are audible almost down to the angle of the scapula. Bacteriological examination of the sputum revealed the presence of numerous tubercle bacilli. His temperature oscillated about 39° C. Until March 27 the patient was treated by applications of tincture of iodine and a sedative linctus but no benefit accrued therefrom.

On March 27 all medicine was discontinued and he was put exclusively on *Histogenol Naline* in the usual doses *viz*: two tablespoonsful daily (the emulsion).



On April 3 the night sweats had markedly diminished, he coughed less and the expectoration was less copious. Already his appetite showed signs of returning but his headache was still very troublesome although the temperature was falling.

On April 9 the patient passed pretty well all day without coughing though he still expectorated to some extent in the morning. His appetite is good and he is gaining strength.

By April 15 the patient expressed himself as able to resume work, his appetite being excellent. Under the influence of some iodide of potassium his headache subsided. Examination

of the sputum (ten preparations) during seven days showed a *notable diminution in the number of bacilli*. The physical signs had also undergone considerable improvement, the bronchitic râles had disappeared and there only remained a few moist râles in the left infra-spinous fossa. There has been no return of the fever since April 3 (see chart).

Weight. March 19 : 57 kil. 700 ; March 27 : 57 kil. 100 ; April 3 : 57 kil. 700 ; April 10 : 58 kil. 500 ; April 15 : 59 kil. 200.

It will thus be seen that before commencing the treatment by *Histogenol* the patient had lost 600 grammes in eight days while under its influence he gained 2 kil. 100 in eighteen days.

CASE 2

Mr. A., age 32, married, came for advice in March 1903. His father, still living, had suffered from tuberculosis but the lesions had healed. One of his brothers had succumbed to pulmonary tuberculosis that ran a slow course. He himself had contracted the disease, presumably in the preceding January.

On examining him for the first time we found as follows : hollow prolonged expiration over the right supra-spinal fossa with, in front, dry crackling in the right apex for a distance of some four inches. Nothing on the left side.

Expectoration was moderate in amount, no spitting of blood but he suffers from insomnia and loss of appetite. He weighs 70 kilogrammes, his height being 1^m73. The evening temperature is from 37.3 to 38°.5 C.

The patient, who is very neurasthenic, is very depressed. He spends his time reading all the pseudo-medical works that he can get hold of with the inevitable result that he is for ever discovering new symptoms and discussing their significance. Needless to say that he was an expert in alighting on mares-nests and he believed himself in a much worse plight than he really was having indeed lost all hope of recovery. This of course is an unfavourable condition for treatment but we did our best to make him understand that there was still a margin of hope.

He had tried cod liver oil which excited an unsurmountable disgust. Cacodylate of soda, given by the mouth, had been abandoned on account of the alliaceous odour to which it gave rise and injected hypodermically toxic symptoms made their appearance after the fourth sitting.

The plan of treatment we adopted was the following : To begin with we did our best to fulfil the indications of a « home sanatorium », rest, a plentiful supply of fresh air and so on. Twice a week the flying cautery to the chest. Generous dietary (eggs, milk, raw meat juice, etc.). Half an hour before each meal a cachet of terpine and nux vomica, with acetanilide or phenacetine to control the fever. Sweating not being very troublesome we did not suggest atropine.

At the end of April the improvement was still not very pronounced. The weight was about the same and so was the temperature. The appetite was capricious and below the mark. The stethoscopic signs however were rather better in front (diminution of the area of crackling) but his general state, looked at as a whole, is far from satisfactory especially has he is so depressed about himself.

It was at this juncture that we decided to put him an *Histogenol Naline*. We chose the Emulsion of which he took two tablespoonsful before the two principal meals.

A week later his weight was still stationary but the copious night sweats have ceased. This indeed is, so far, the only appreciable change.

On the twelfth day he had gained four ounces in weight and on the sixteenth day he was found to have increased half-a-pound in four days. The appetite showed signs of returning and was less capricious. The sweats have altogether ceased. The area of crackling has contracted in a marked degree and for the last four days the evening temperature has never exceeded $37^{\circ}.7$ C.

On the 20th day the patient had gained another five ounces and the evening temperature had fallen to $37^{\circ}.3$. Great improvement in the appetite and he eats his raw meat sandwiches with relish.

The *Histogenol* treatment was suspended for a week and resumed on the 27th day. By this time sleep had become sounder and calmer and the patient feels rested when he wakes. The area of crackling has still further contracted and now does exceed the size of a crown piece.

35th day. The total gain in weight since we began the administration of *Histogenol* reaches 900 grammes (about two pounds). No night sweats, sleep quiet and restful. The temperature never exceeds 37°.2 C. and there is very little expectation. The patient has taken courage at last, indeed, passing from one extreme to the other, he is disposed to put all precautions aside were he not admonished. The hollow breathing at the back of the right apex is unchanged.

40th day. His weight has increased by 1.500 grammes (over three pounds) and his appetite is voracious. No crackling is now audible over the front even when the patient is made to cough. We thought it well at this stage to substitute the granular form of *Histogenol* for the Emulsion.

He continued to take the granulated form of *Histogenol Naline* for twenty days at a time followed by a week's repose, with occasional applications of the flying cautery. At the end of July the patient resumed little by little his usual habits of life merely observing certain precautions.

The patient was seen again in November 1903 when he weighed 74 kilogrammes and was following his ordinary occupation. Stethoscopic examination enabled us to affirm that the lesions had completely healed. At present, that is to say, in March 1904, no recurrence has taken place though he developed catarrhal laryngitis free however from any suspicion of tuberculosis.

CASE 3

Mr. M., 18 years of age, without any morbid antecedents, was brought by his mother in 1903. For some time previously he had been coughing, had lost flesh and had become dull and listless. He sweated profusely at night. We could not help noticing that he seemed ill-at-case, with a hesitating look and

pupils abnormally dilated and he had a difficulty in expressing himself. On auscultation a *souffle* was heard at the back of the left apex and on percussion there was pronounced loss of elasticity of the chest wall over that spot.

The patient, who had lost his appetite, suffered at times from sudden attacks of violent hunger. His mother, on being questioned, said her son was depressed and had become very bad tempered.

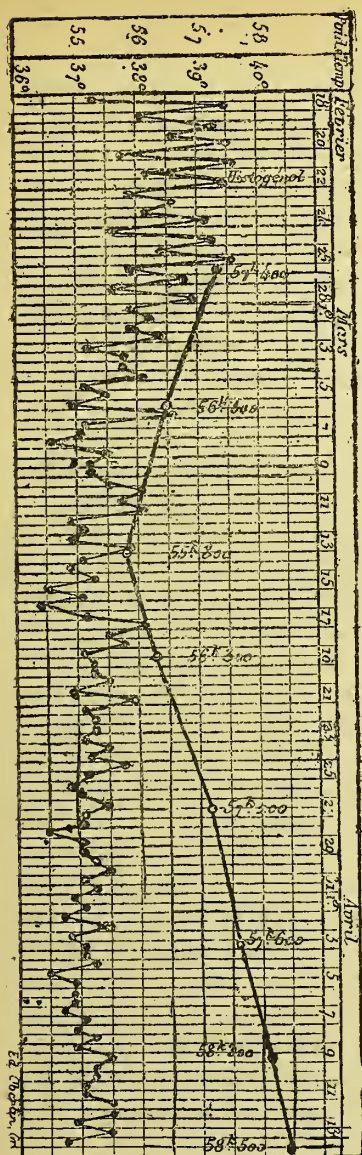
When, under some pretext, we had induced the mother to wait in the next room, we proceeded to cross question the young man and with some hesitation he admitted that for the last eight months he had been addicted to self indulgence with very damaging results to his general health.

We managed to reassure him in respect of his condition and having calmed his mothers apprehensions we directed the patient to come back two days later, alone. As he appeared a likely subject and having obtained his consent we tried the psycho-therapeutic method of reinforcing the will. The hypotaxic stage was reached without difficulty and he was then impressed by suggestion to leave off his vicious habit and we asked that his father should see us.

He came the next day and we gave him certain explanations bearing on his son's case. He undertook to allow his son to pass one afternoon a week in Paris provided with some pocket money. Three days later he was subjected to a second induction of the hypnotic state. We prescribed applications of tincture of iodine to the affected spot and internally the liquid *Histogenol Naline* for twenty days at a time, followed by eight days repose, in doses of two table spoonsful before meals. No other treatment.

He was subjected to hypnotic influence on two subsequent occasions, not proceeding beyond the hypotonic state, short of complete sleep. In a month all stethoscopic signs had disappeared, the patient had regained strength and spirits, his nights were calm and his irritability of character had given place to his ordinary good humour. He no longer perspired or coughed and he had altogether abandoned his vicious practices.

CASE 4



Mr. B., boiler-maker. No history of tuberculosis in his family. No previous illness but in August 1901 he began to cough. From that date he had lost flesh rapidly, his cough became more and more troublesome and expectoration was abundant. There was complete anorexia and on January 1st night sweats supervened with a rise of temperature every evening. He soon became unable to work and applied for advice. He had never spat blood.

From January 1st to February 22 the only treatment was light cauterisation of the chest and a raw meat diet. During that period the evening temperature invariably exceeded 39° C. sometimes reaching 40° C. (104 F.). The cough and expectoration had not improved in any way and the appetite was still very poor.

At the date of commencing the administration in of *Histogenol Naline* (Emulsion) the paroxysms of cough were very distressing,

causing intense thoracic pain and accompanied by copious expectoration of a yellowish-green colour. Appetite bad, especially late in the day. Profuse night sweats.

On physical examination we found some dulness over the left apex extending behind nearly to the angle of the scapula. Vocal resonance was increased and we heard moist râles over the upper half of the lung. The sputum contained numerous bacilli. The epididymus on the right side was enlarged, hard and irregular in outline. The seminal vesicle on the same side also seemed to be bigger than normal. During the first few days the patient suffered from mild diarrhoea which subsided without special treatment in the course of a day or two. On March 10th no change was perceptible in his condition except that the temperature was lower, having been falling since Feb'y 27th. (See chart).

On March 12th the sweats were less profuse and the appetite was improving though still feeble, especially of an evening. The other symptoms were much the same as before.

On March 17 the expectoration was blood-stained and he was ordered a mixture containing ergotine, without discontinuing the *Histogenol*. Two days later all trace of blood had disappeared.

On March 24 the appetite had markedly improved and he could eat better at dinner. The night sweats were much less profuse and both cough and expectoration were on the mend. The testicular lesions remained *in statu quo*. On March 30 the night sweats had quite subsided, the cough only troubled him in the morning and the expectoration was trifling. He ate with a good appetite both morning and evening.

On April 14 the patient returned to work, eating and digesting well. The sweats had not recurred. Beyond some expectoration on rising in the morning the cough troubled him but little. Sexual desire had returned.

Physical examination showed that the moist râles had almost entirely disappeared and there remained only some blowing respiration, prolonged expiration and dry crackling. The sputum was free from bacilli. The evolution of the testicular lesions seemed to have been arrested.

Weight. Feby 15: 57 kil. 800; Feby 27: 57 kil. 400;
March 6: 56 kil. 600; March 13: 55 kil. 800; March 19:
56 kil. 300; March 27: 57 kil. 200; April 3: 57 kil. 600; April 10:
58 kil. 100; April 14: 58 kil. 500.

We cannot reproduce our notes of all the cases that we have had under treatment but we may state that, viewed as a whole, they afford conclusive evidence that under the influence of *Histogenol Naline* the patient's appetite promptly improves some of them indeed becoming big eaters. This is a point of very great importance since this medication enables us to subject the patient to hyperalimentation without any trouble. Now the basis of the treatment of tuberculosis is hyperalimentation of some kind *plus* certain measures of general hygiene. This return of the appetite is followed by a rapid increase of body weight, the patients recover their spirits and take a more hopeful view of life.

Histogenol Naline has moreover an unquestionable action on the fever its effect being that of a powerful antipyretic. Under its influence the night sweats disappear completely, the cough becomes much less troublesome and often subsides altogether. Expectoration at first becomes easier, then less copious and there is a marked improvement in respect of its purulence.

We are therefore justified in claiming for *Histogenol Naline* that it is a valuable therapeutical agent capable of rendering the greatest service in the treatment of tuberculosis, præ-tuberculous affections and all maladies that are associated with general impairment of nutrition. *Histogenol Naline* is indeed, of all known antituberculous medications, the one which most markedly influences the tuberculous and præ-tuberculous soil which it hyperacidifies and transforms into a simili-arthritic diathesis, thereby conferring upon it a natural hyperacid quasi-immunity.

(Signed) Dr PAMARD,

Senior Physician to the Gonesse Hospital (Seine-et-Oise).

(Signed) Dr PARSAVANT,

Physician to the Antituberculous Dispensary at Saint-Denis.

AN OPEN LETTER

Dear Sir,

In placing before you the article by Dr^s Pamart and Par-savant I beg leave to call your attention to the fact that *Histogenol Naline* is a product of unquestionable scientific value which is placed *exclusively under the patronage of the medical profession.*

Numerous scientific investigations have established its remarkable therapeutical action as a *reconstituent and powerful accelerator of general nutrition* in the daily treatment of consumptive diseases : *General debility, tuberculosis, chronic bronchitis, scrofula, rickets, chloro-anæmia, neurasthenia, malarial cachexia, convalescence, etc.*

Histogenol Naline has been dealt with in papers read before the Academie des Sciences, the *Société de Biologie et de Thérapeutique* as well as in others published in the *Presse Médicale*, the *Progrès Médical*, the *Concours Médical*, the *Revue de Thérapeutique*, etc. Lastly it was selected as the subject of a thesis passed before the Faculty of Medicine of Paris.

It is employed in many hospitals and sanatoria and is daily prescribed by many leaders of the profession at home and abroad

If you will kindly give the product a trial in your practice you may be assured of obtaining satisfactory results and in common with many of your *confrères* you will recognize that it often proves efficacious in cases where many other forms of treatment have failed to do good.

Thanking you in anticipation. I am, faithfully yours.

(Signed) A. NALINE,

*Ex-Resident Pharmacist of the Paris Hospitals.
Saint-Denis (Seine).*

(1) In ordering **Histogenol** please be good enough to specify the precise form that you intend your patient to take, *i e.*

Histogenol Naline (*Emulsion*).

Histogenol Naline (*Elixir*).

Histogenol Naline (*Granular form*).

Histogenol Naline (*in bulbs*).

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SOUTHALL, EROS & BARCLAY, BIRMINGHAM

CLAY & ABRAHAM, Bold St. LIVERPOOL.

G. E. BRIDGE & Co, 128, Old Christchurch Rd, BOUNREMOUTH.

HORTON & Co, Torwood St, TORQUAY.

W. H. GIBSON, Chemist, Kings Rd, BRIGHTON.

P. L. RIDGE, 16, Regent Parade, HABROGATE.

1847

1. The first of the year was a very cold day, with a heavy frost, and a strong wind from the north.

2. The second day was a very warm day, with a heavy rain, and a strong wind from the south.

3. The third day was a very cold day, with a heavy frost, and a strong wind from the north.

4. The fourth day was a very warm day, with a heavy rain, and a strong wind from the south.

5. The fifth day was a very cold day, with a heavy frost, and a strong wind from the north.

6. The sixth day was a very warm day, with a heavy rain, and a strong wind from the south.

7. The seventh day was a very cold day, with a heavy frost, and a strong wind from the north.

8. The eighth day was a very warm day, with a heavy rain, and a strong wind from the south.

9. The ninth day was a very cold day, with a heavy frost, and a strong wind from the north.

10. The tenth day was a very warm day, with a heavy rain, and a strong wind from the south.

11. The eleventh day was a very cold day, with a heavy frost, and a strong wind from the north.

12. The twelfth day was a very warm day, with a heavy rain, and a strong wind from the south.

13. The thirteenth day was a very cold day, with a heavy frost, and a strong wind from the north.

14. The fourteenth day was a very warm day, with a heavy rain, and a strong wind from the south.

15. The fifteenth day was a very cold day, with a heavy frost, and a strong wind from the north.

16. The sixteenth day was a very warm day, with a heavy rain, and a strong wind from the south.

17. The seventeenth day was a very cold day, with a heavy frost, and a strong wind from the north.

18. The eighteenth day was a very warm day, with a heavy rain, and a strong wind from the south.

19. The nineteenth day was a very cold day, with a heavy frost, and a strong wind from the north.

20. The twentieth day was a very warm day, with a heavy rain, and a strong wind from the south.

21. The twenty-first day was a very cold day, with a heavy frost, and a strong wind from the north.

22. The twenty-second day was a very warm day, with a heavy rain, and a strong wind from the south.

23. The twenty-third day was a very cold day, with a heavy frost, and a strong wind from the north.

24. The twenty-fourth day was a very warm day, with a heavy rain, and a strong wind from the south.

25. The twenty-fifth day was a very cold day, with a heavy frost, and a strong wind from the north.

26. The twenty-sixth day was a very warm day, with a heavy rain, and a strong wind from the south.

27. The twenty-seventh day was a very cold day, with a heavy frost, and a strong wind from the north.

28. The twenty-eighth day was a very warm day, with a heavy rain, and a strong wind from the south.

29. The twenty-ninth day was a very cold day, with a heavy frost, and a strong wind from the north.

30. The thirtieth day was a very warm day, with a heavy rain, and a strong wind from the south.

31. The thirty-first day was a very cold day, with a heavy frost, and a strong wind from the north.

It is well to direct patients to be on their guard against substitution and to refuse any *soi disant* « similar » product, experience having shown that these are invariably inert and often dangerous.

Histogenol Naline is distinguishable by the fact that every bottle and capsule bears the signature *NALINE*. The cork also bears this name.

The label is in four colours (*blue, black, gold, white*), and the word **Histogenol** is always printed in gold and white on a black ground.

N. B. — The sale of **Histogenol Naline** is guarded and the compulsory minimum price ensures a fair remuneration for the retail chemist.

Samples and Literature sent on demand

Although **Histogenol Naline** is kept by all the principal pharmacists medical men desiring samples are requested to apply direct to

Mr. NALINE, Pharmacien.

SAINT-DENIS, near Paris (Seine).

POSODOLOGY AND PHARMACEUTICAL FORMS OF HISTOGENOL NALINE

Histogenol is prepared in four different forms: **Emulsion, Elixir, Granular Form** and in **Bulbs**.

EMULSION

Histogenol Naline Emulsion is a white milky liquid, the dose of which is as follows :

Adults. — Two tablespoonsful daily, one tablespoonful to be taken one hour before each meal.

Children. — Two teaspoonsful or dessert-spoonsful daily.

The ELIXIR

Is suitable for fastidious persons who are unable to take ordinary medicines.

The GRANULAR Form

In deference to the requirements of certain patients who dislike taking liquid medicines we have prepared Histogenol in a granulated form to be taken by measuresful.

Dose for adults. — Two measuresful daily, one before each principal meal.

Dose for children. — Two half-measuresful daily.

BULBS

Dose for adults. — The contents of one bulb, to be injected into the muscular tissue daily.

Directions for Use.—Histogenol may be given for four

or five days, followed by an interval of equal length, then resumed.

The best results however are obtained by taking Histogenol for twenty consecutive days in doses of twospoonsful daily. Its administration is then suspended for a week then repeated as before should this be necessary.

The patient should be advised to adopt a generous dietary of eggs, meat-juice, raw meat, etc. as soon as the appetite returns. Thus administered Histogenol may be taken for several months without causing any disturbance of digestion or setting up gastritis or giving an alliaceous odour to the breath and perspiration and without any risk of exciting renal or hepatic congestion.

It may be well to add that in certain subjects suffering from advanced tuberculosis some diarrhœa may supervene but in such cases if the treatment be suspended for a day or two, or if a little bismuth be administered, this soon subsides.

CHAPTER III

REPORTS ON CASES

TREATED WITH

HISTOGENOL NALINE

To the very practical article of Drs Pamart and Parsavant we now add a few medical letters, genuine notes of cases, showing the indisputable efficacy of *Histogenol Naline* in the treatment of tuberculous and præ-tuberculous affections.

Hasnon (Nord), Feby 24 1905.

Sir,

I have just made a trial with one of the two bottles, that containing the Emulsion, which you were good enough to place at my disposal. I am positively enthusiastic about the results that I have obtained in the case of a young tuberculous patient, 18 years of age, who had reached the third stage of the disease and in which the outlook was the more serious seeing that his parents being very poor were unable to provide him with the indispensable articles of food for adequate alimentation. I take particular interest in this young patient and I am pleased to be enabled to state that the cough has much diminished as also the expectoration. His appetite, which was wretched, has become quite lively, he has lost the night sweats and feels much stronger, so much so that he has requested me to write to thank you and to ask you to be good enough to favour him with a second bottle. He is so convinced of the efficacy of the preparation that I could not refuse his request though at the same time I may say that it is my intention to prescribe the product in future in all suitable cases so struck am I by its properties. As opportunities for prescribing it are alas but too frequent in this neighbourhood you may be sure that your charity will not be misplaced. I am grateful to you for having brought to my notice such an excellent preparation.

Yours faithfully,

(Signed) Dr MASSET,
ex-chef de clinique at the Faculty of Lille.

Marseilles, Jany 24 1905.

Sir,

Supplementing the notes of the case already sent you I may add that *Histogenol* has done wonders for my patient whose right lung was so badly damaged. After the first bottle there was noteworthy improvement which I have already communicated to you. The results of the second bottle surprised me beyond measure. It was almost a resurrection. Hardly any cough, disappearance of all abnormal sounds from the right apex and but the slightest difference in breathing between the two sides. She no longer got short of breath when going up hill, she had entirely regained his strength along with her ordinary animated expression of face. I could not get them to weigh the patient but it is easy to see that she has put on flesh indeed it could hardly be otherwise in view of the incredible appetite and rapid digestion that *Histogenol* confers. The young patient, who is a sister of mercy, has resumed her onerous nursing duties.

I am making use of the third bottle for a lady 58 years of age who, only four days ago, was utterly prostrated by an attack of influenza that had lasted three weeks. Unable to take food in consequence of complete loss of appetite she was rapidly losing flesh and was unable to move herself in bed. Four days on *Histogenol* in two teaspoonsful doses daily has completely changed the state of affairs. The appetite returned in two days, her voice has been restored and today she has been able to leave her bed for five hours and to go from one room to another unaided. She has even read the papers. In three or four days, I apprehend that she will be able to return to work.

I am not exaggerating, I merely state the facts. You are at liberty to make use of my notes in any way you please. I shall be pleased to make known the great value of *Histogenol*.

Yours faithfully,

(Signed) Dr DUBOIS.

DISEASES
OF THE
RESPIRATORY TRACT

Paris, Feby 9 1905.

Sir,

I thank you for having placed a supply of *Histogenol* at my disposal for the dispensary. I have prescribed it ever since its introduction and it has yielded excellent results for which I hope to be able to express my thanks in person on Saturday, the 18th instant, when I have to attend a congress on tuberculosis in connection with the General Meeting of the Antituberculous Dispensary.

Yours faithfully,

Dr G. PETIT.

Paris, Feby 9th 1905.

Sir

I duly received the sample of *Histogenol* and have no hesitaitaion in declaring it to be excellent. Hitherto I have employed it more particularly in cases of primary acute bronchitis or bronchitis occurring as a complication of infectious diseases measles, influenza, etc., as well as in cases of pulmonary tuberculosis at the second period. In every instance I obtained a rapid cure or at any rate well-marked improvement.

For my own part, having run down in consequence of overwork a single bottle set me on foot again.

In short your preparation deserves to be recommended and I shall miss no opportunity of prescribing it, so encouraged am I by the results already obtained.

I may add that the Elixir seems to be the most popular form.

Yours faithfully,

Dr J. MONTAGNÉ.

Paris, March 14 1905.

Sir,

I have been very pleased with the use of *Histogenol* employed in the form of intra-muscular injections. I have given daily injections to a young employé, much run down in consequence of overwork and intense intellectual activity. He complained of emaciation, loss of appetite, laborious digestion and insomnia. After the first injection he volunteered the statement that « I feel as if I had passed a good night » and this sensation was subsequently maintained. The appetite was restored, digestion was more easily accomplished, he slept well and he gained three pounds in twelve days, *i e* after twelve injections. I shall be pleased to receive another box of a dozen bulbs in order to continue my observations.

Yours faithfully,

Dr FACDOUEL.

Monte-Carlo, Jany 28 1905.

Sir,

I have the greatest pleasure in informing you that in the only two cases in which I have tried *Histogenol* my patients have derived the greatest benefit therefrom.

I gave the *Elixir* to a young woman 25 years of age in the fourth month of gestation, much exhausted by the early months of pregnancy and just recovering from severe pulmonary influenza. Appetite, strength and colour have returned and today — three weeks after taking the first spoonful — this young lady is able to dispense with my services.

The *Emulsion* gave me equally good, if not indeed superior, results. I gave it to a child five years of age who presented the complications of influenza (otorrhoea, obstinate bronchitis and obstinate dyspepsia). I had previously given the child cod liver oil which unfortunately it could not retain and the usual substitutes for the oil were equally unsuccessful. Your *Histogenol* worked wonders, the child has entirely recovered his health and the merit of this belongs to you. This double experience will enable me to prescribe your product with the quasi-certainty of success. In my opinion it must be classed among the most perfect and best medicinal tonics of contemporary therapeutics.

You are at liberty to make any use you please of this letter.

Dr LEYMARIE.

Neuvy-sur-Barangeon.

Sir,

I am pleased to add my testimony to that of, no doubt, many others as to the value of your *Histogenol*.

On two occasions your product have given me surprising results in cases of prolonged influenza in feeble old men.

I feel justified in attributing their recovery to *Histogenol* seeing that none of the other treatments had up to that time given any appreciable result.

In future I shall hasten to prescribe your product in all suitable cases.

Yours truly,

Dr ROKÉACH.

Lozère.

Sir,

Numerous are the medicaments placed at the disposal of practitioners for the purpose of restoring strength to the organism. Some, such as kola, coca, the glycerophosphates, etc., have given good results but owing to individual idiosyncrasies these remedies fail to fulfil our expectations in particular cases. Will this be the case with *Histogenol*? and shall we meet with patients who prove refractory to its action? That I cannot say but there is every reason to think that such cases will be rare for *Histogenol* is agreeable to take and, acting as it does directly on the red blood corpuscule, it is a reconstituent of the highest order. I have examined the blood of a patient before and after taking *Histogenol* and the difference in the number of corpuscles was very marked. After taking a few spoonful of the remedy the number of corpuscles increased by more than one half. The effects on the economy at large were naturally well marked. Here are my notes of a patient treated by *Histogenol*. I summarise it in order not to trespass unduly on our attention.

Mr C..., pedlar, 42 years of age. He came to these parts last year after the death of his father at 83 years of age, due to exhaustion following two attacks of influenza. His mother died at the age of 55, in 1887, from some uterine affection. She had been operated two years before for a tumour of the breast. After the death of his father Mr C... fell into such a state of prostration that he had to give up work. Indisposed to exertion and devoid of strength he was always sleepy yet never enjoyed sound sleep. He complained of slight but constant pain in the pit of the stomach, most marked after eating. He then feels as if everything he had eaten had accumulated at the bottom of the stomach and could only get through the pylorus with difficulty to pass into the duodenum. Pressure on this spot gave rise to little or no pain but on palpation one could make out some resistance and the wall of the stomach seemed to be thicker than normal over an area of two or three inches. No vomiting or acid regurgitation. His teeth are good and he thoroughly masticates his food. His complexion is straw-coloured and the ankles swell at night. Nothing abnormal could be made out on auscultation of the lungs. A slight murmur was audible at the base of the heart propagated along the carotid. A similar murmur was audible in the femoral artery just below the Poupart's ligament. On the least exertion the patient gets out of breath and is obliged to sit down. He not unfrequently bleeds from the nose. The microscopic examination of the blood showed the red corpuscles to be fewer than normal and slightly deformed. It occurred to me that this might possibly be due to his habit of heating his room by a cast iron stove. He took the principal reconstituents — iron, kola, the glycerophosphates, etc., for a time without any benefit and his poverty prevented his taking any of them regularly. While I was attending him I was also attending a lady to whom I was giving inhalations of oxygen. This patient having died I took advantage of what remained of the oxygen to give it to my first patient. It seemed to do him good but of course

we could not go on with it, oxygen being very expensive and not being easy to get in the country. I then gave him the bottle of *Histogenol* that M. Naline had kindly placed at my disposal and when he had taken it the patient felt slightly but distinctly better. He slept better and sleep was less troubled disturbed by dreams, his appetite improved and what particularly pleased him was that he no longer felt that weight on the stomach although he was eating more. *Histogenol*, he assured me, was, with oxygen, what had done him most good. I advised him to go on taking it and I ordered two bottles so that he might continue the treatment for some time. At the end of the second bottle the swelling of the ankles no longer took place, digestion was easier, his strength seemed to be returning and he could walk three or four miles without fatigue. He sleeps well and feels so well that as he says, he thinks he could almost return to his ordinary occupations. Nevertheless he proposes to continue the treatment and I did not examine the blood again until he had finished his third bottle. It proved to be normal, the red corpuscles had more than doubled in number and the patient, with his bright jovial face, said to me « Now that I have resuscitated I shall take bold of my wandering jew's stick for I feel coming over me the desire to tramp the country once again ». Seeing him so well I allowed him to resume his wandering life and to peddle mantillas to young and charming Spanish girls.

Histogenol has done this man the greatest good and he will certainly recommend it to many others.

Dr P. F.

Sir,

You were good enough some time since to send me two sample bottles of *Histogenol*. I gave one of my patients the benefit thereof and the results appear to me to have been quite satisfactory.

The patient in question, a young man 24 years of age, was frankly tuberculous and presented extensive lesions in both lungs. He had quite lost his appetite, was unable to tolerate cod liver oil and refused injections of the cacodylate on account of the disagreeable odour they caused. Sleep was disturbed by a frequent troublesome cough and he was gradually losing ground.

I tried all the bitters and sedatives I could think of but the anorexia persisted whereupon I gave him a bottle of granular *Histogenol*. Within five or six days the appetite began to return and at present he takes a fair amount of food. With the return of the appetite he has gained in strength, the cough is less troublesome — effects unquestionably due to the *Histogenol*. In presence of these results I propose giving your product a trial in other cases. Meanwhile I must congratulate you on having brought about the temporary resurrection —if I may say so — of my unfortunate patient.

Yours faithfully,

Dr RUJUL.

Sir,

I have tried the sample of *Histogenol* you sent me last October and have been astonished by the result obtained.

In a case of præ-tuberculous anaemia two bottles sufficed to effect a complete cure. In the other case the patient was in the second stage of tuberculosis and he promptly recovered appetite and strength, the night sweats soon subsided, the cough diminished and he gradually put on a notable increase of weight.

I should like to continue my observations with *Histogenol* and therefore beg you to be good enough to let me have a further supply, preferably in the form of the Emulsion, since this seems to me to be the best and the most readily borne.

In order that my patients may have no difficulty in procuring your product I have requested my chemist to order a few bottles. I shall thus be enabled to continue my experiments on a large scale.

Yours faithfully,

D^r V.

Mortagne-du-Nord, Feby 7 1905.

Sir,

I have employed your excellent preparation hypodermically in four cases of anaemia and pronounced general debility. The first patients treated by *Histogenol* were two young chlorotic girls who had previously taken numerous preparations of iron and arsenic. Under the influence of your product their strength was rapidly restored, the appetite returned and my patients, who belonged to the working classes, were enabled to return to work. The third case was that of a young man, age 20, anaemic and neurasthenic, who had had to relinquish his studies and had tried many methods of treatment without benefit. Your preparation put him on his feet in 25 days. The fourth case was that of a patient at the change of life. She is still under treatment but she already feels much better.

You are at liberty to publish these notes.

Yours faithfully,

D^r HENNETON.

Sir,

I thank you very much for the samples you have been good enough to send me. They have enabled me to give *Histogenol* a trial and to appreciate its high therapeutical value.

It would be difficult for me to supply you with properly taken notes of the cases for this is an almost impossible task in a country practice.

I may however refer to the case of a tuberculous subject, 40 years of age, who, after a copious haemoptysis, lost weight considerably. I gave him *Histogenol* Emulsion and in the course of a fortnight he had gained over three pounds in weight and his general state had notably improved to the extent of allowing him to go out for walks.

I also gave *Histogenol* (granulated) to a child of 14 who was suffering from very pronounced malarial cachexia that was refractory to sulphate of quinine. Under the influence of your preparation the child regained strength, increased in size and no longer suffers from his attacks.

Yours faithfully,

Dr D.

Manchecourt (Loiret), Feby 19 1905.

Sir,

I am pleased to be able to communicate to you the following notes of a case which is typical of several others.

A person 35 years of age presented himself with several cold tuberculous abscesses which had been operated several times leaving chronic suppuration that had reduced him to a state of cachexia. He had undergone ordinary antiscrofulous treatment but did not improve until he took *Histogenol*. This is the best proof I can give of the therapeutical value of *Histogenol*.

I authorise your making any use you please of this communication and shall always be pleased to receive your new preparations.

Yours truly,

Dr RAYNAUD.

Pais, March 2 1905.

Sir,

Pray receive my thanks for the sample of *Histogenol* that you were good enough to send me. We were aware of the fact that it had already been employed with success in several of the Paris hospitals but so many

antituberculous remedies have been recommended that we could not resist a certain feeling of scepticism.

It is only fair to say that after having tried many other remedies *Histogenol Nalinc* is the one that has given us the most encouraging results. What especially struck us in our patients was the rapid improvement in the general state, the fever and sweats gradually subsided, the weight increased, the strength returned and the gastric intolerance almost disappeared. These excellent results, which we have never obtained as quickly or as completely with the exclusively arsenical treatment, establish the excellent composition of your *Histogenol* which appears to us to be the best antituberculous formula yet known to science.

Yours faithfully,

E. TOXY.

WORKS BEARING
ON
HISTOGENOL NALINE

COMMUNICATIONS READ BEFORE THE

Académie des Sciences ;
Société de Biologie ;
Société de Thérapeutique ;

Thesis resented to the *Faculty of Medicine of Paris* on « The Treatment of Chronic Pulmonary Tuberculosis by *Histogenol Naline* ».

ARTICLES HAVE APPEARED IN :

The **Presse Médicale** ;
The *Progrès Médical* ;
The *Concours Médical* ;
The *Revue de Thérapeutique* ;
The *Revue Antituberculeuse* ;
The *Lutte Antituberculeuse* ;
The *Journal des Praticiens* ;
The *Collectivité Médicale* ;
The *Journal des Praticiens de Lyon* ;
The *Gazette Médicale de Nantes* ;
El *Siglio Medico* ;
The *Gazette Médicale de Grenade*.



